EA Form R 1/2007

Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

1. *Applicant/Contact name and address*: Bottrell Family Investments Partnership
PO Box 80284
Billings, MT 59108

2. *Type of action*: Application to Change a Water Right No. 42KJ-30017250

3. *Water source name*: Yellowstone River

4. *Location affected by project*: A new transitory point of diversion is being proposed, which will replace the old point of diversion. As proposed, the transitory diversion will extend from the upstream point located in the SENW Sec. 14, T06N R42E, to a point located about ½ miles downstream in Sec. 11, T06N R42E, Rosebud County.

5. *Narrative summary of the proposed project, purpose, action to be taken, and benefits*:
The applicant proposes to replace the old point of diversion with a new transitory point of diversion. As proposed, the transitory diversion will extend from the upstream point located in the SENW Sec. 14, T06N R42E, to a point located about ½ mile downstream in Sec. 11, T06N R42E, Rosebud County. The transitory diversion site is requested in the event of receding water altering the high water levels of the water source. The transitory pump will be moved when the water levels drop off, requiring the pump site to be moved to run effectively.

The DNRC shall issue an authorization to change if the applicant proves the criteria in 85-2-402, MCA, are met.

5. *Agencies consulted during preparation of the Environmental Assessment:*
(include agencies with overlapping jurisdiction)
Montana Natural Heritage Program
Montana State Historic Preservation Office
Natural Resources and Conservation Service – Liberty County
Montana Bureau of Mines Website
Dept. of Enviromental Quality Website (TMDL 303d listing)
MT Dept. of Fish, Wildlife & Parks Website (Montana Rivers Information System)
National Wetlands Inventory Website

Part II. Environmental Review

1. Environmental Impact Checklist:

PHYSICAL ENVIRONMENT

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity *- Assess whether the source of supply is identified as a chronically or periodically dewatered stream by DFWP. Assess whether the proposed use will worsen the already dewatered condition.*

Determination: The Yellowstone River is considered a periodically dewatered stream by the Dept. of Fish, Wildlife and Parks (DFWP) from the Big Horn River to Springdale (river mile 293.9 to river mile 473.5). The proposed transitory point of diversion is not within that reach but is located within the Tongue River to Bighorn River reach. The Dept. of Fish, Wildlife and Parks has a water reservation granted on the Yellowstone River, from the Tongue River to the Bighorn River (river mile 183.0 to river mile 293.9), which is downstream from the dewatered stream section mentioned above. The water reservation identifies separate reserved flow rates for each month, which are listed below. The period of use on the change application is April 1 to September 30. Because this application is for a replacement point of diversion, which will be transitory, and no additional flow rate will be diverted, the application is not expected to create an impact. The water reservation information mentioned below is simply noted for informational purposes.

From (rm 183.0) to (rm 293.9) TONGUE R to BIGHORN R

Begin	End	Flow (CFS)	Priority Date
01/01	01/31	3829	12/15/1978
02/01	02/31	3998	12/15/1978
03/01	03/31	6359	12/15/1978
04/01	04/31	5848	12/15/1978
05/01	05/31	12280	12/15/1978
06/01	06/31	26188	12/15/1978
07/01	07/31	10278	12/15/1978
08/01	08/31	3862	12/15/1978
09/01	09/31	4338	12/15/1978
10/01	10/31	5849	12/15/1978
11/01	11/31	5508	12/15/1978
12/01	12/31	4009	12/15/1978

Water quality *- Assess whether the stream is listed as water quality impaired or threatened by DEQ, and whether the proposed project will affect water quality.*

Determination: The Yellowstone River, from the Cartersville Diversion Dam to the Powder River, has been listed by the Montana Department of Environmental Quality on the 2002 and 2006 TMDL 303(d) list as having one or more uses impaired and needing a TMDL. On the 2006 list, the source partially supports aquatic life and warm water fishery but there is insufficient information to determine other uses on the source such as agricultural, drinking water, industrial and recreation. Since the transitory point of diversion will not be diverting more water than was historically diverted under Water Right Claim No. 42KJ-176483, there should be no significant impact.

Groundwater *- Assess if the proposed project impacts ground water quality or supply. If this is a groundwater appropriation, assess if it could impact adjacent surface water flows.*

Determination: This is a surface water application for a new transitory point of diversion. The new transitory point of diversion is replacing the old diversion. No additional flow will be diverted so this appropriation should not create a significant impact.

DIVERSION WORKS *- Assess whether the means of diversion, construction and operation of the appropriation works of the proposed project will impact any of the following: channel impacts, flow modifications, barriers, riparian areas, dams, well construction.*

Determination: The new transitory point of diversion site will be operated with three mobile pumps mounted on two-wheel trailers. Two of the pumps are centrifugal Paco, Model 3012-7, 1750 rpm, 550 gpm pumps. Each of the Paco, Model 3012-7 centrifugal pumps will be driven by 25 bhp three phase electric motors. The third pump will be a Paco, Model 5015-7, 1750 rpm, 1050 gpm pump. The Model 5015-7 pump will be driven by a 60 bhp, three phase electric motor. All three pumps will include suction tubes and self-cleaning induction screens. The suction tube will be lifted from the source water via a block and tackle winch apparatus mounted at the hitch of the trailer. The discharge will be connected to an eight inch underground sprinkler supply line with a flexible multi-ply rubber hose to allow for pressure movement and ease of transition to a different pump site when it is moved. The water will be conveyed to the respective sprinkler pivot points via an eight inch PVC mainline of 100 pound test. The pump and trailer design has been reviewed and given approval by the Corps of Engineers. This is a typical design for recent diversion sites along the Yellowstone River. The new transitory diversion site is not expected to impact the channel, flow modifications, riparian areas, dams or well construction. No adverse contamination is anticipated due to the fact that the centrifugal pumps are driven by electric motors rather than internal combustion engines.

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species *- Assess whether the proposed project will impact any threatened or endangered fish, wildlife, plants or aquatic species or any "species of special concern," or create a barrier to the migration or movement of fish or wildlife. For groundwater, assess whether the proposed project, including impacts on adjacent surface flows, would impact any threatened or endangered species or "species of special concern."*

Determination: According to a report from the Montana Natural Heritage Program, there are seven (7) species of concern found in the general area of this project. One (1) species is identified as threatened and six (6) species are identified as sensitive by the U.S. Bureau of Land Management.

The threatened species is the Bald Eagle and the sensitive species are the Long-billed Curlew, Spiny Softshell, Paddlefish, Blue Sucker, Sturgeon Chub, and the Sauger. The change in the point of diversion site should not cause a significant impact to the species found. The project site is not within or near a critical wildlife habitat area and will not deteriorate any wildlife habitat. Therefore, the project is not expected to cause a significant impact.

Wetlands *- Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted.*

Determination: No known wetlands exist in the project area.

Ponds *- For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.*

Determination: There are no ponds associated with this application.

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE - *Assess whether there will be degradation of soil quality, alteration of soil stability, or moisture content. Assess whether the soils are heavy in salts that could cause saline seep.*

Determination: This application is a change in the point of diversion only. The old point of diversion will be replaced with a new transitory point of diversion. There will be no changes in the place of use. It will continue to be irrigated but will be switched from flood to sprinkler irrigation. The Corp of Engineer's Office (CORP) suggested a boat ramp pump site design, which was preferable for the site and accepted by the CORP. The soils in the area are Spinekop silty clay loam, 0 to 2 percent slopes, and Yamac loam, 0 to 2 percent slopes. The soils information obtained online through NRCS website indicates the soils have a rating of 'slight' for potential erosion which rating of 'slight' indicates that erosion is unlikely under ordinary climatic conditions. The water management section of the NRCS soil website indicates for terraces and diversions, the soils erode easily. Because this change application does not include changing the place of use and because the diversion site will include the approved boat ramp design, the project should not cause a significant impact.

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS - *Assess impacts to existing vegetative cover. Assess whether the proposed project would result in the establishment or spread of noxious weeds.*

Determination: There will be some river bank disturbance when the boat ramp is constructed, as designed by the Corps of Engineer, but because the boat ramp design will be used for the mobile transitory pump, it should not cause a significant impact. The Yellowstone River banks are currently in native grass. The change in the point of diversion from a stationary diversion to a transitory mobile pump site should not have a significant impact to existing vegetative cover. However, it is the responsibility of the property owner to control noxious weeds on their property.

AIR QUALITY - *Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.*

Determination: No impacts to air quality will occur as a result of this project.

HISTORICAL AND ARCHEOLOGICAL SITES - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project.*

Determination: According to the Montana State Historical Society (Society), there have been two previously recorded sites within the designated search location, a historic railroad bed and a historic bridge. The Society stated that there is a low likelihood cultural properties will be impacted and therefore, feels that a recommendation for a cultural resource inventory is unwarranted at this time. The Society further stated that if cultural materials are discovered while completing the project, they ask that the Society be notified and the site investigated. As the project is located on private property, any inventory conducted would be at the landowner's discretion.

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY - *Assess any other impacts on environmental resources of land, water and energy not already addressed.*

Determination: No additional impacts on other environmental resources were identified.

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS - *Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.*

Determination: There are no known environmental plans or goals in this area.

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES - *Assess whether the proposed project will impact access to or the quality of recreational and wilderness activities.*

Determination: The project should have no significant or harmful impact on recreational or wilderness activities.

HUMAN HEALTH - *Assess whether the proposed project impacts on human health.*

Determination: The project should have no impact on human health.

PRIVATE PROPERTY - *Assess whether there are any government regulatory impacts on private property rights.*
Yes___ No___ If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.

Determination: There are no additional government regulatory impacts on private property rights associated with this application.

OTHER HUMAN ENVIRONMENTAL ISSUES - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.*

Impacts on:

(a) Cultural uniqueness and diversity? No significant impact.

(*b) Local and state tax base and tax revenues?* No significant impact.

(c) Existing land uses? No significant impact.

(*d) Quantity and distribution of employment?* No significant impact.

(e) Distribution and density of population and housing? No significant impact.

(f) Demands for government services? No significant impact.

(g) Industrial and commercial activity? No significant impact.

(h) Utilities? No significant impact.

(i) Transportation? No significant impact.

(j) Safety? No significant impact.

(k) Other appropriate social and economic circumstances? No significant impact.

2. ***Secondary and cumulative impacts on the physical environment and human population:***

Secondary Impacts: No secondary impacts have been identified.

Cumulative Impacts: No cumulative impacts have been identified.

3. ***Describe any mitigation/stipulation measures:*** None at this time.

4. ***Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:***
No action alternative: Under the no action alternative, the applicant would not have the benefit of being able to pump with the transitory pump when the river is low. The applicant would have to continue pumping with a stationary pump and then only when the flow of the river is at the legal description on the claim.

Aternative 1: Approve the change application as submitted if the applicant proves the criteria in 85-2-402, MCA, is met.

PART III. Conclusion

1. ***Preferred Alternative:*** Alternative 1.

2. ***Comments and Responses:*** None

3. ***Finding:***

Yes___ No__**X**__ Based on the significance criteria evaluated in this EA, is an EIS required?

If an EIS is not required, explain <u>why</u> the EA is the appropriate level of analysis for this proposed action: No significant impacts have been identified, therefore an EIS is not necessary.

Name of person(s) responsible for preparation of EA:
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Title: Water Resources Specialist
Date: March 8, 2007